

Amendment under 37 C.F.R. §1.114
Attorney Docket No. 052496
Application No. 10/533,655

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended): An aluminum alloy-and-resin composite comprising:
a shaped aluminum alloy material that has been subjected to a dipping process in which it is dipped in a 3 to 10% hydrazine monohydrate aqueous solution at 40 to 70°C, said shaped aluminum alloy material having fine recesses with a diameter of 30 to 300 nm on the surface of said shaped aluminum alloy material, said fine recesses having been formed by a basic reaction; and
a thermoplastic resin composition integrally bonded to a surface of said shaped aluminum alloy material by injection, said thermoplastic resin composition containing polyphenylene sulfide as a component.

2. (Currently Amended): An aluminum alloy-and-resin composite comprising:
a shaped aluminum alloy material that has been subjected to a dipping process in which after it has been dipped in a basic aqueous solution and/or an acid aqueous solution for pretreatment, said shaped aluminum alloy material is dipped in a 3 to 10% hydrazine monohydrate aqueous solution at 40 to 70°C, said shaped aluminum alloy material having fine recesses with a diameter of 30 to 300 nm on the surface of said shaped aluminum alloy material, said fine recesses having been formed by a basic reaction; and

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a thermoplastic resin composition integrally bonded to a surface of said shaped aluminum alloy material by injection, said thermoplastic resin composition containing polyphenylene sulfide as a component.

3-4. (Cancelled)

5. (Currently Amended): A production method for an aluminum alloy-and-resin composite, comprising the steps of:

dipping a shaped aluminum alloy material in a 3 to 10% hydrazine monohydrate aqueous solution at 40 to 70°C to form fine recesses having a diameter of 30 to 300 nm on the surface of said shaped aluminum alloy material by a basic reaction;

inserting said shaped aluminum alloy material into a mold; and

integrating a thermoplastic resin composition containing polyphenylene sulfide to a surface of said shaped aluminum alloy material in said mold.

6. (Currently Amended): A production method for an aluminum alloy-and-resin composite, comprising the steps of:

dipping a shaped aluminum alloy material in a basic aqueous solution and/or an acid aqueous solution for pretreatment;

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dipping said shaped aluminum alloy material after said pretreatment in a 3 to 10% hydrazine monohydrate aqueous solution at 40 to 70°C to form fine recesses having a diameter of 30 to 300 nm on the surface of said shaped aluminum alloy material by a basic reaction;

inserting said shaped aluminum alloy material into a mold; and

integrating a thermoplastic resin composition containing polyphenylene sulfide to a surface of said shaped aluminum alloy material in said mold.

7. (Cancelled)

8. (Previously Presented): An aluminum alloy-and-resin composite according to claim 1, wherein said shaped aluminum alloy material is dipped in the hydrazine monohydrate aqueous solution for several minutes.

9. (Previously Presented): An aluminum alloy-and-resin composite according to claim 2, wherein said shaped aluminum alloy material is dipped in the hydrazine monohydrate aqueous solution for several minutes.

10. (Previously Presented): A production method for an aluminum alloy-and-resin composite according to claim 5, wherein said step of dipping said shaped aluminum alloy material further comprises dipping said shaped aluminum alloy material in the hydrazine monohydrate aqueous solution for several minutes.

11. (Previously Presented): A production method for an aluminum alloy-and-resin composite according to claim 6, wherein said step of dipping said shaped aluminum alloy material after said pretreatment further comprises dipping said shaped aluminum alloy material in the hydrazine monohydrate aqueous solution for several minutes.

12. (Previously Presented): An aluminum alloy-and-resin composite according to claim 1 or 2, wherein said shaped aluminum alloy material is dipped in the hydrazine monohydrate aqueous solution at 50°C for two minutes.

13. (Previously Presented): A production method for an aluminum alloy-and-resin composite according to claim 6, wherein said step of dipping said shaped aluminum alloy material after said pretreatment further comprises dipping shaped aluminum alloy material in the hydrazine monohydrate aqueous solution at 50°C for two minutes.

14. (New): A production method for an aluminum alloy-and-resin composite, comprising the steps of:

dipping a shaped aluminum alloy material in a 3 to 10% hydrazine monohydrate aqueous solution at 40 to 70°C to form fine recesses having a diameter of 30 to 300nm on the surface of said shaped aluminum alloy material by a basic reaction, and to adsorb nitrogen-containing compounds attributable to hydrazine on the surface of said shaped aluminum alloy material;

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inserting said shaped aluminum alloy material into a mold; and
integrating a thermoplastic resin composition containing polyphenylene sulfide to a
surface of said shaped aluminum alloy material in said mold.